

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for streaming media data to a client, said method comprising:

encoding an item of content comprising media data to be streamed to said client into a first multiple description bitstream and into a second multiple description bitstream, wherein said first multiple description bitstream and said second multiple description bitstream are decodable independent of one another; and

distributing concurrently said first and second multiple description bitstreams to a plurality of servers placed at intermediate nodes throughout a network, such that said first and second multiple description bitstreams are sent to said client via a plurality of transmission paths, wherein said client decodes said item of content at a media stream of a first quality should only said first multiple description bitstream be received at said client, wherein said client decodes said item of content at a media stream of a second quality should only said second multiple description bitstream be received at said client, and wherein said client decodes said item of content at a media stream of a quality greater than either of said first or second quality should both said first and said second multiple description bitstreams be received at said client.

2. (Previously Presented) The method for streaming media data to a client as recited in Claim 1, wherein said encoding further comprises:

encoding said item of media data into a first and a second complementary multiple description bitstream wherein each of said first and second complementary multiple description bitstreams contains complementary information.

3. (Canceled).

4. (Previously Presented) The method for streaming media data to a client as recited in Claim 1, wherein said encoding further comprises:

encoding said item of media data into a first and a second complementary multiple description bitstream wherein each of said first and second complementary multiple description bitstreams does not include encoded media data that is included in the other of said first and second complementary multiple description bitstreams.

5. (Previously Presented) The method for streaming media data to a client as recited in Claim 1, wherein said item of media data is selected from the group consisting of audio-based data, speech-based data, image-based data, graphic data, and web page-based data.

6. (Previously Presented) The method for streaming media data to a client as recited in Claim 1, wherein said distributing further comprises:

distributing said first multiple description bitstream to a first server and distributing said second multiple description bitstream to a second server.

7. (Original) The method for streaming media data to a client as recited in Claim 1, wherein said client is a mobile client.

8. (Previously Presented) The method for streaming media data to a client as recited in Claim 7, wherein said distributing further comprises:

distributing said first and second multiple description bitstreams to servers placed along a wired/wireless gateway.

9. (Original) The method for streaming media data to a client as recited in Claim 1, wherein said method does not require complete duplication of said media data in order to achieve path diversity.

10. (Previously Presented) The method for streaming media data to a client as recited in Claim 1, wherein said method is performed in a network system selected from the group consisting of: wired and wired networks; wired and wireless networks; wireless and wired networks; and wireless and wireless networks.

11. (Currently Amended) A method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client, said method comprising:

encoding an item comprising media data to be streamed to said client into a first complementary multiple description bitstream and into a second complementary multiple description bitstream, each of said first and second complementary multiple description bitstreams containing complementary information not included in the other of said first and second complementary multiple description bitstreams, and wherein said first multiple description bitstream is designed so that said item at a media stream of a first quality is decoded by said client with only said first multiple description bitstream received at said client, wherein said second multiple description bitstream is designed so that said item at a media stream of a second quality is decoded by said client with only said second multiple description bitstream received at said client, and wherein said item at a media stream of a quality greater than said first or second quality is decoded by said client with both said first and said second multiple description bitstreams received at said client; and

distributing concurrently said first complementary multiple description bitstream and said second complementary multiple description bitstream to a plurality of servers placed at intermediate nodes throughout a network, such that said first and second multiple description bitstreams are dispatched to said client via a plurality of transmission paths.

12. (Canceled).

13. (Previously Presented) The method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client as recited in Claim 11, wherein each of said first and second complementary multiple description bitstreams does not include encoded media data that is included in the other of said first and second complementary multiple description bitstreams.

14. (Previously Presented) The method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client as recited in Claim 11, wherein said media data is selected from the group consisting of audio-based data, speech-based data, image-based data, graphic data, and web page-based data.

15. (Previously Presented) The method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client as recited in Claim 11, wherein said distributing further comprises:

distributing said first complementary multiple description bitstream to a first server and distributing said second complementary multiple description bitstream to a second server.

16. (Original) The method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client as recited in Claim 11, wherein said client is a mobile client.

17. (Previously Presented) The method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client as recited in Claim 16, wherein said distributing further comprises:

distributing said first complementary multiple description bitstream and said second complementary multiple description bitstream to servers placed along a wired/wireless gateway.

18. (Original) The method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client as recited in Claim 11, wherein said method does not require complete duplication of said media data in order to achieve path diversity.

19. (Previously Presented) The method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client as recited in Claim 11, wherein said method is performed in a network system selected from the group consisting of: wired and wired networks; wired and wireless networks; wireless and wired networks; and wireless and wireless networks.

20. (Currently Amended) A system for streaming media data to a client, said system comprising:

a first server having first memory coupled thereto, said first memory having a first multiple description bitstream of encoded said media data stored thereon, said first server adapted to transmit said first multiple description bitstream to a client via a first path through said network; and

a second server having second memory coupled thereto, said second memory having a second multiple description bitstream of encoded said media data stored thereon, wherein said first multiple description bitstream and said

second multiple description bitstream are decodable independent of one another and wherein said first and said second multiple description bitstreams have approximately a same bit rate, wherein said second multiple description bitstream is transcoded by said second server to a reduced bit rate according to an amount of available bandwidth for a second path through said network, said second server adapted to transmit transcoded said second multiple description bitstream to said client via said second path, said first and second servers concurrently transmitting said first and said transcoded second multiple description bitstreams such that said first and said transcoded second multiple description bitstreams are provided to said client via a plurality of transmission paths;

wherein said client decodes an item of content at a first quality should only said first multiple description bitstream be received at said client, wherein said client decodes said item of content at a second quality should only said second multiple description bitstream be received at said client, and wherein said client decodes said item of content at a quality greater than either of said first or second quality should both said first and said second multiple description bitstreams be received at said client.

21. (Original) The system for streaming media data to a client of Claim 20 further comprising:

a content server coupled to said first server and said second server, said content server adapted to provide said first multiple description bitstream of encoded said media data to said memory coupled to said first server, said content server further adapted to provide said second multiple description bitstream of encoded said media data to said memory coupled to said second server.

22. (Previously Presented) The system for streaming media data to a client of Claim 20, wherein said media data is selected from the group consisting of audio-based data, speech-based data, image-based data, graphic data, and web page-based data.

23. (Original) The system for streaming media data to a client of Claim 20, wherein said client is a mobile client.

24. (Original) The system for streaming media data to a client of Claim 23 wherein said first server is placed along a wired/wireless gateway of a network.

25. (Original) The system for streaming media data to a client of Claim 20 wherein said second server is placed along a wired/wireless gateway of a network.

26. (Previously Presented) The system for streaming media data to a client of Claim 20 wherein first server and said second server reside within a network system selected from the group consisting of: wired and wired networks; wired and wireless networks; wireless and wired networks; and wireless and wireless networks.